Title (en)

AIRCRAFT ASSEMBLY TOOL AND METHOD OF MANUFACTURING THE SAME

Title (de)

FLUGZEUGMONTAGEWERKZEUG UND METHODE ZU DESSEN HERSTELLUNG

Title (fr)

DISPOSITIF D'ASSEMBLAGE D'AERONEF ET SON PROCEDE DE FABRICATION

Publication

**EP 1230124 A1 20020814 (EN)**

Application

**EP 00976160 A 20001116**

Priority

- GB 0004374 W 20001116
- GB 9927235 A 19991117
- GB 0018617 A 20000728

Abstract (en)

[origin: WO0136270A1] This invention provides a method of producing an aircraft assembly tool for supporting an aircraft component comprising: a) determining a plurality of predetermined positions and orientations in space at which the component should be supported; b) designing a fixture frame (12) configured to provide support at predetermined locations of the frame associated with said predetermined positions; c) constructing the fixture frame by selecting elongate members (14) having predetermined lengths and connecting the elongate members together by means of releasable fastening means (32); d) constructing a plurality of pick-up devices (20), each having a receiving element (76) for carrying the component, by selecting further elongate members (66) having predetermined lengths and connecting the further elongate members together by means of clamping elements (68) adapted selectively to allow at least three degrees of freedom of movement of each receiving element along at least two orthogonal axes and around at least one axis coplanar with the orthogonal axes; e) mounting the pick-up devices to the fixture frame at the predetermined locations; and f) moving each receiving element about/around the orthogonal axes to align the receiving element with a respective predetermined position and orientation. The invention further provides an aircraft assembly tool resulting from such a method.

IPC 1-7

**B64F 5/00**

IPC 8 full level

**B23P 21/00** (2006.01); **B64F 5/00** (2006.01)

CPC (source: EP US)

**B64F 5/10** (2016.12 - EP US); Y10T 29/49771 (2015.01 - EP US); Y10T 29/49778 (2015.01 - EP US); Y10T 29/4978 (2015.01 - EP US); Y10T 29/49826 (2015.01 - EP US); Y10T 29/49895 (2015.01 - EP US); Y10T 29/53961 (2015.01 - EP US); Y10T 29/53978 (2015.01 - EP US)

Citation (search report)

See references of WO 0136270A1

Cited by

KR100899123B1; FR3042175A1; CN110498059A; US10647070B2; US10640235B2; US10606243B2; US10025288B2; EP3587242A1; WO2017064411A1; US10364046B2; EP3587279A1; EP2937754A1; EP3587251A1; US9889949B2; US10179662B2; EP3127821A1; US10025293B2; EP3588219A1; WO2020002927A1; WO2020002925A1; WO2020002928A1; WO2020002926A1

Designated contracting state (EPC)

DE ES FR GB IT SE

DOCDB simple family (publication)

**WO 0136270 A1 20010525**; AU 1404201 A 20010530; DE 60025031 D1 20060126; DE 60025031 T2 20060622; DE 60043675 D1 20100225; EP 1230124 A1 20020814; EP 1230124 B1 20051221; EP 1600379 A2 20051130; EP 1600379 A3 20051214; EP 1600379 B1 20100106; ES 2250213 T3 20060416; ES 2338894 T3 20100513; JP 2003512975 A 20030408; JP 3577039 B2 20041013; US 2001025406 A1 20011004; US 2004055130 A1 20040325; US 6671941 B2 20040106; US 7047614 B2 20060523

DOCDB simple family (application)

**GB 0004374 W 20001116**; AU 1404201 A 20001116; DE 60025031 T 20001116; DE 60043675 T 20001116; EP 00976160 A 20001116; EP 05076794 A 20001116; ES 00976160 T 20001116; ES 05076794 T 20001116; JP 2001535349 A 20001116; US 69394903 A 20031028; US 72327500 A 20001129